

## REMARKS

Claims 1-77 have been pending.

The claims are amended and canceled without disclaimer or prejudice, and, thus, the pending claims remain for reconsideration, which is requested. No new matter has been added.

Claims 66-77 are rejected under 35 USC 101 for being directed to non-statutory subject matter, because allegedly the specification recites evidence where the computer readable medium is defined as a 'signal.' However, the Office Action does not point where in the specification a computer readable medium is defined as a 'signal.' Further, as also acknowledged by the Examiner, the phrase 'computer readable medium' shall be interpreted according to USPTO's current understanding of the law and consistent with binding precedent of the Supreme Court, the Federal Circuit and the Federal Circuit's predecessor courts. Withdrawal of the rejection is requested (see generally, USPTO Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility).

Claims 1-77 are rejected under 35 USC 112, second paragraph, for indefiniteness. The claims are amended. Withdrawal of the rejection is requested.

Claims 1-5, 54-58, 66-70 are rejected under 35 USC 102(e) as being anticipated by Ford (US Publication no. 2002-0107939).

Claims 6-53, 59-65 and 71-77 are rejected under 35 USC 103(a) as being unpatentable over Ford in view of Nagasaka (US Patent No. 6,556,875).

The independent claims are 1, 54, and 66, which are rejected as being anticipated by Ford. Independent claim 1 is amended to require the limitations of dependent claim 5, partial limitations of dependent claims 2-4 and further amended to require patentably distinguishing features. No new matter is added.

A benefit of the invention is to real-time compose an executable task based upon a combination of two or more semantically described services, so that an executable task is a real-time combination of functionalities of services included in that task, and the real-time combination of functionalities provide more functionality than functionality of individual services, such that the effect of the claimed "**executable task comprising combining two or more of the available services**" is a real-time created 'application' (see paragraph 830). The Office Action relies upon Ford paragraphs 29, 30, 37, 40, 41, 49 and 53 to reject claims 1-5 (see also

paragraph 52). However Ford only discusses location or discovery of components, interfaces, or resources based upon certain specified attributes using the discussed discovery protocol of a request packet 220 and response packet 240. Further, Ford paragraph 52 discusses the response packet 240 including a service interface (a serialized stub) 246 'which provides the code that is necessary for interfacing with the requested component of the service provider 212.

A prima facie case of anticipation based upon Ford cannot be established, because Ford fails to expressly, inherently, or implicitly disclose the language of amended claim 1, namely **“real-time composing by a user an executable task comprising combining two or more of the available services by dynamically presenting to the user feasible possible executable tasks based upon filtering one or more of the discovered available services according to a context of the user including the composed task [paragraphs 197-198, 257, 921], the filter parameters in the SSDs, and/or the semantic input/output parameters in the SSDs.”** In other words, claim 1 provides real-time composition of an executable task that includes two or more available services **“based upon one or more of filtering the discovered available services according to a context of the user including the composed task, the filter parameters in the SSDs, and/or the semantic input/output parameters in the SSDs.”**

Further, Nagasaka does not expressly, inherently or implicitly discuss the claimed **“real-time composing by a user an executable task including combining two or more of the available services, ... based upon one or more of filtering the discovered available services according to a context of the user including the composed task, the filter parameters in the SSDs, and/or the semantic input/output parameters in the SSDs,”** because Nagasaka merely discusses predefining a data path between a source and a destination to provide a composite device. In other words, Nagasaka's composite device discussed in column 23, lines 25-34 and columns 29-30 and column 26, lines 60-64 is essentially a predefined association of output of one device into input of another device, which fails to disclose expressly or inherently a real-time composition of an executable task that includes two or more available services **“based upon one or more of filtering the discovered available services according to a context of the user including the composed task, the filter parameters in the SSDs, and/or the semantic input/output parameters in the SSDs.”** Nakasaka's composite device cannot provide a benefit of the invention, namely an executable task as a real-time combination of functionalities of semantically described services to be included in that task, such that the effect of the claimed **“executable task comprising**

**combining two or more of the available services**” is a real-time created ‘application’ (see paragraph 830).

Further, for example, nothing has been cited or found, expressly, inherently or implicitly in Ford and Nagasaka, that discloses the claimed “***semantic service description***” having “an input/output ***parameter mapping and/or an input/output parameter transformation*** function between the semantic input/output parameters and syntactic input/output interface parameters of the service.”

In non-limiting examples, the present application supports claim 1 as follows:

1. (currently amended) A computer-based system in communication with a plurality of different types of computing sources of functionality, each computing source of functionality being a service to a user, comprising:

[FIGS. 13-16 - 110, 1302; paragraphs 66, 146-148, 257-258, 562]

means for associating each service with a semantic service description (SSD), which semantically describes the plurality of different types of computing sources of functionality for filtering, composing and executing the service, and is discoverable as an available service according to one or more discovery protocols, wherein the SSD comprises:

[paragraph 230, 365+, 435]

a semantic description of the service, including a semantic description of input/output parameters of the service as semantic input/output parameters, based upon an ontology,

a filter parameter specifying relevance of the service, and

[paragraphs 168, 429-434]

a grounding including:

a service invocation interface to the service;

and/or

an input/output parameter mapping and/or an input/output parameter transformation function between the semantic input/output parameters and syntactic input/output interface parameters of the service;

[paragraphs 229-235, 243-245, 268-277, 290, 386-388, 495-509, 517 (transformation function - FIGS. 12, 55) and FIGS. 12-14, 16 - see “***transforming***” in paragraph 233]

means for dynamically discovering one or more of the SSDs as the available services through the plurality of discovery

protocols to discover the SSDs;

[paragraphs 149, 188-195, 220]

means for real-time composing by a user an executable task comprising combining two or more of the available services by dynamically presenting to the user feasible possible executable tasks based upon one or more of filtering the discovered available services according to a context of the user including the composed task, the filter parameters in the SSDs, and/or the semantic input/output parameters in the SSDs; and

[paragraphs 163, 190, 197-198, 219-223, 257, 342, 435, 530, original claim 5, 830, 885, 921, 928]

means for a computer system-executing a task computing, thus enabling users to define tasks by combining available functionality and to execute such tasks by invoking the two or more available services that comprise the task, including enabling the user to interact with an invoked available service, based upon the grounding in the associated SSDs including the service invocation interfaces and the input/output mapping and/or transformation functions between the semantic input/output parameters and the syntactic input/output parameters.

[paragraphs 171-172, 257, 536].

See also, for example, paragraphs 814 and 866 for example benefits of the invention. Accordingly, a prima facie case of anticipation or obviousness based upon either Ford or Nagasaka cannot be established, and withdrawal of the rejection of claim 1 and allowance of claim 1 is requested.

Independent claims 54 and 66 are amended to require limitations similar to the discussed limitations of amended claim 1.

Dependent claims recite patentably distinguishing features of their own or are at least patentably distinguishing due to their dependencies from the independent claims.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,  
STAAS & HALSEY LLP

/Mehdi D. Sheikerz/

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